

## ABSTRACT

1           A vibrator motor has a stationary piece and a moving piece  
2           hinged at one end. The moving piece does not generate substantial internal  
3           spring forces under the influence of an electromagnetic field, because it  
4           does not have a tail bracket. Other parts of conventional motors are also  
5           eliminated, so the motor is easier and less expensive to manufacture. In  
6           addition, the motor can be assembled and tuned before installation, which  
7           increases the ability to automate assembly.